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June 30, 2005

Via ECFS

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
Washington, D.C. 20554

**Re: MB Docket No. 03-15
Journal Broadcast Corporation
FRN: 0002-7101-92
WGBA-DT, Green Bay, Wisconsin, Facility ID No. 2708
Notification of Compliance with July 1, 2005 Interference
Protection Deadline**

Dear Ms. Dortch:

In response to the *Public Notice*, "DTV Channel Election Issues – Compliance with the July 1, 2005 Replication/Maximization Interference Protection Deadline; Stations Seeking Extension of the Deadline," DA-05-1636 (June 15, 2005) (the "Public Notice"), Journal Broadcast Corporation ("JBC") licensee of analog (NTSC) television station WGBA, Channel 26, and permittee of digital television station (DTV) WGBA-DT, Channel 41, both Green Bay, Wisconsin, hereby advises the Commission that its operation of WGBA-DT satisfies the digital construction deadline and replication requirement established in *Report and Order*, "Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television," FCC 04-192 (Sept. 7, 2004) ("*Second Periodic Review Order*").

Concurrently herewith, JBC has submitted a request for modification of WGBA-DT's existing Special Temporary Authority ("STA") to authorize an increase in the station's effective radiated power ("ERP") to a maximum of 600 kilowatts. (For convenience, a copy of the request is attached.) As explained in the attached Engineering Statement, WGBA-DT, at the proposed 600 kilowatts ERP, will provide DTV service to 100 percent of the population predicted to receive analog service from WGBA's licensed facilities, which are defined as WGBA-DT's "Replication Facilities." Because JBC has elected to migrate WGBA-DT's

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The Secretary

June 30, 2005

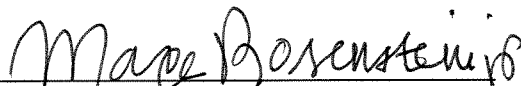
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permanent digital operation from its assigned channel 41 to WGBA's current analog channel 26 at the end of the digital transition, operation of WGBA-DT pursuant to the modified STA satisfies the replication/maximization interference protection requirement established in the *Second Periodic Review Order*.

Please direct any questions regarding this submission to the undersigned.

Respectfully submitted,

Journal Broadcast Corporation

By: 
Mace J. Rosenstein

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Its Attorneys

cc: Shaun Maher, Media Bureau

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June 30, 2005

BY NETWORK COURIER

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
Media Bureau
P.O. Box 358165
Pittsburgh, PA 15251

**Re: Journal Broadcast Corporation
FRN: 0002-7101-92
Request for Modification of Special Temporary Authority
WGBA-DT, Green Bay, Wisconsin, Facility ID No. 2708
File No. BDSTA-20020301AGL, as most recently extended
by File No. BEDSTA-20041118AEX**

Dear Ms. Dortch:

On behalf of Journal Broadcast Corporation ("JBC"), the licensee of WGBA-TV and permittee of WGBA-DT, both Green Bay, Wisconsin, we hereby request modification of special temporary authority ("STA") for the operation of WGBA-DT.

JBC is currently operating WGBA-DT pursuant to STA from the facilities specified in the station's construction permit (File No. BPCDT-19990902AAG; granted February 23, 2001). The current STA, File No. BEDSTA-20041118AEX, specifies 4.14 kilowatts maximum effective radiated power ("ERP"). JBC filed a request for further extension of this STA on June 22, 2005 (copy attached). As detailed in the attached Engineering Statement, the instant submission requests operation with the same parameters as specified in the current STA, modified to permit a maximum 600 kilowatts ERP. JBC notes that WGBA-DT, at the proposed 600 kilowatts ERP, will provide DTV service to 100 percent of the population predicted to receive analog service from WGBA's

HOGAN & HARTSON L.L.P.

Ms. Marlene H. Dortch, Secretary
June 30, 2005
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licensed facilities, which are defined as WGBA-DT's "Replication Facilities," and therefore satisfies the replication/maximization interference protection requirement established in *Report and Order*, "Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television," FCC 04-192 (released Sept. 7, 2004).

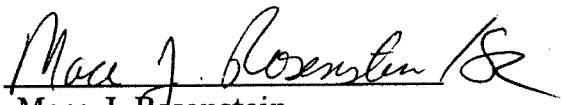
The undersigned has been authorized to state that no party to this request is subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

Enclosed is FCC Form 159 and our firm's credit card payment to cover the required filing fee. Also enclosed is an additional copy of this request to be stamped as received and returned via our courier.

Please direct any questions concerning this matter to the undersigned counsel in addition to the licensee.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

By: 
Mace J. Rosenstein

Attorneys for Journal Broadcast
Corporation

Enclosure

cc: WGBA(TV) Public Inspection File

FCC/MELLON

JUN 22 2005

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June 22, 2005

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BY COURIER

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
Mass Media Services
P.O. Box 358165
Pittsburgh, PA 15251-5165

Re: **Journal Broadcast Corporation**
(FRN: 0002-7101-92)
Request for Further Extension of Special Temporary Authority
WGBA-DT, Green Bay, Wisconsin, Facility ID No. 2708
File No. BDSTA-20020301AGL, as most recently extended
by File No. BEDSTA-20041118AEX

Dear Ms. Dortch:

On behalf of Journal Broadcast Corporation, the permittee of WGBA-DT, Green Bay, Wisconsin (the "Station"), we hereby request a further extension of the above-referenced special temporary authority ("STA") for an additional 180 days to continue to operate the Station at 4.14 kW from the facilities specified in the Station's construction permit (File No. BPCDT-19990902AAG (granted February 23, 2001)). 1/

1/ See *In the Matter of Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 16 FCC Rcd 2054 at ¶ 34. ("Licensees with an existing construction permit for a larger facility may elect to commence digital operation with a DTV facility that complies only with . . . minimum initial build-out requirements and is fully subsumed by the permitted facilities.")

HOGAN & HARTSON L.L.P.

Ms. Marlene H. Dortch, Secretary

June 22, 2005

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Specifically, the Station seeks a further extension of STA to continue operating as follows:

DTV Channel: 41

DTV Power: 4.14 kW ERP (maximum)

Antenna Location Coordinates: 42°21'30" N; 087°58'48" W (NAD 27)

Antenna Site Height AMSL: 301.8 meters

Height of Radiation Center AGL: 277 meters

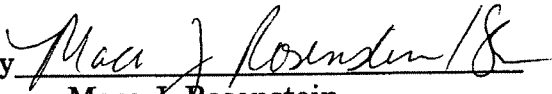
Tower Registration No.: 1034782

Enclosed is a Form 159 with a credit card payment to cover the filing fee. The undersigned has been authorized to state that no party to the applicant is subject to a denial of federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862.

Please date stamp and return the additional copy of this STA request. Any communications regarding this matter may be addressed to the undersigned.

Respectfully submitted,

HOGAN & HARTSON L.L.P.

By 
Mace J. Rosenstein

Attorneys for
Journal Broadcast Corporation

Enclosures

cc: WGBA-DT Public Inspection File

ENGINEERING STATEMENT IN
SUPPORT OF REQUEST TO MODIFY
SPECIAL TEMPORARY AUTHORITY

WGBA-DT - GREEN BAY, WI

Journal Broadcast Corporation
Green Bay, WI

June 30, 2005

Prepared For: Mr. Andy Laird
Journal Broadcast Corporation
P.O. Box 693
Milwaukee, WI 53201-0693

CARL E. SMITH CONSULTING ENGINEERS

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Fig. 1.1 - WGBA-DT Horizontal Radiation Pattern

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Fig. 1.2 - WGBA-DT Vertical Radiation Pattern

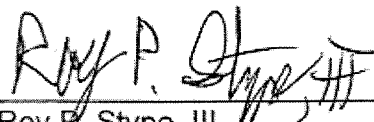
Fig. 1.3 - Predicted WGBA-DT Service Contours
(Proposed WGBA-DT STA Facilities)

ENGINEERING AFFIDAVIT

State of Ohio)
) ss:
County of Summit)


Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by the Journal Broadcast Corporation to prepare the attached "Engineering Statement In Support Of Request To Modify Special Temporary Authority - WGBA-DT - Green Bay, WI

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.



Roy P. Stype, III

Subscribed and sworn to before me on June 30, 2005.



Notary Public

/SEAL/

NANCY A. ADAMS, Notary Public
Residence - Cuyahoga County
State Wide Jurisdiction, Ohio
My Commission Expires Sept. 5, 2008

SECTION III-D DTV Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1.	Channel Number:	DTV	<u>41</u>	Analog TV, if any	<u>26</u>
2.	Zone:	<input type="checkbox"/> I	<input checked="" type="checkbox"/> II	<input type="checkbox"/> III	
3.	Antenna Location Coordinates: (NAD 27)				
	<u>44</u> °	<u>21</u> '	<u>30</u> "	<input checked="" type="checkbox"/> N	<input type="checkbox"/> S Latitude
	<u>87</u> °	<u>58</u> '	<u>48</u> "	<input type="checkbox"/> E	<input checked="" type="checkbox"/> W Longitude
4.	Antenna Structure Registration Number:		<u>1034782</u>		
	<input type="checkbox"/> Not applicable	<input type="checkbox"/> FAA Notification Filed with FAA			
5.	Antenna Location Site Elevation Above Mean Sea Level:		<u>301.8</u>	meters	
6.	Overall Tower Height Above Ground Level:		<u>321.6</u>	meters	
7.	Height of Radiation Center Above Ground Level:		<u>264.9</u>	meters	
8.	Height of Radiation Center Above Average Terrain:		<u>321.3</u>	meters	
9.	Maximum Effective Radiated Power (average power):		<u>600</u>	kW	
10.	Antenna Specifications:				
a.	Manufacturer		Model		
	<u>Dielectric</u>		<u>TUA-C4-8/32U-1-S</u>		
b.	Electrical Beam Tilt: <u>0.75</u> degrees		<input type="checkbox"/> Not Applicable		
c.	Mechanical Beam Tilt: _____ degrees toward azimuth		_____ degrees True		<input checked="" type="checkbox"/> Not Applicable
	Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).				
	Exhibit No. 				
d.	Polarization:		<input checked="" type="checkbox"/> Horizontal	<input type="checkbox"/> Circular	<input type="checkbox"/> Elliptical

TECH BOX

- e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)
Rotation: _____ ° ☒ No rotation

Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value	Degree	Value
0	0.974	60	0.528	120	0.539	180	0.970	240	0.597	300	0.634
10	0.904	70	0.430	130	0.651	190	0.922	250	0.706	310	0.875
20	0.747	80	0.474	140	0.563	200	0.747	260	0.919	320	0.901
30	0.569	90	0.496	150	0.554	210	0.718	270	1.000	330	0.690
40	0.610	100	0.465	160	0.738	220	0.927	280	0.923	340	0.733
50	0.647	110	0.431	170	0.899	230	0.833	290	0.724	350	0.916
Additional Azimuths											

If a directional antenna is proposed, the requirements of 47 C.F.R. Section 73.625(c) must be satisfied. **Exhibit required.**

Exhibit No. _____

11. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") ☐ Yes ☐ No

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

Exhibit No. _____

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** Item 3 is answered "No.")

Exhibit No. _____

13. **Environmental Protection Act.** Submit in an Exhibit the following:

Exhibit No. _____

- a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R. Section 1.1311.

PREPARER'S CERTIFICATION IN SECTION III MUST BE COMPLETED AND SIGNED.

ENGINEERING STATEMENT

This engineering exhibit is prepared on behalf of the Journal Broadcast Corporation, licensee of WGBA(TV) - Green Bay, Wisconsin and permittee of construction permit BPCDT-19990902AAG for paired DTV station WGBA-DT - Green Bay, Wisconsin. The above referenced construction permit authorizes WGBA-DT to construct DTV facilities to operate with a maximum effective radiated power of 1000 kilowatts, utilizing a directional antenna, at 321.3 meters above average terrain from the presently licensed WGBA transmitter site. WGBA-DT is presently authorized to operate pursuant to Special Temporary Authority ("STA") granted by the FCC with a maximum effective radiated power of 4.14 kilowatts at 279 meters above average terrain utilizing a directional antenna which is side mounted on the same tower which supports the WGBA analog antenna. This engineering statement supports a request to modify this STA and documents that the proposed modified STA facilities will provide the required principal community coverage to Green Bay, while also complying with the other applicable requirements to obtain such an STA.

The antenna for these modified STA facilities is a Dielectric TUA-C4-8/32R-1-S horizontally polarized directional antenna, located at a height of 264.9 meters above ground on the tower which supports the WGBA analog antenna. The modified WGBA-DT STA facilities will employ this antenna system at a maximum effective radiated power of 600 kilowatts. A completed "Tech Box" portion of Section III-D of FCC Form 301 has been included as part of this engineering exhibit to provide complete documentation regarding these modified STA facilities. Table 1.0 presents a summary of the effective radiated power calculations for these modified STA facilities. As shown in this table, a transmitter power output of 28.5 kilowatts is required to achieve this maxi-

maximum effective radiated power. Figure 1.0 presents a vertical plan view of the modified DTV STA facilities. Table 1.1 and Figure 1.1 present the horizontal radiation pattern for this antenna. Similarly, Table 1.2 and Figure 1.2 present the vertical radiation pattern for this antenna.

Figure 1.3 is a map exhibit depicting the predicted 41 dBu and 48 dBu contours for these modified STA facilities in relation to the predicted 41 dBu contour for the DTV facilities authorized by the WGBA-DT construction permit. As shown in this map exhibit, the predicted 41 dBu contour for these modified STA facilities will be totally encompassed within the 41 dBu contour for the facilities authorized by the WGBA-DT construction permit. Thus, these modified DTV STA facilities are deemed to comply with all applicable allocation requirements. This map exhibit also depicts the Green Bay city limits and clearly shows that the predicted 48 dBu contour for these modified STA facilities will totally encompass the city of Green Bay. Thus, these modified STA facilities fully comply with the principal community coverage requirements applicable to DTV stations.

The modified WGBA-DT STA facilities will fully comply with the FCC standard regarding human exposure to nonionizing radiation. Equation (2), found on Page 30 of Supplement A to OET Bulletin 65, details the calculation technique used to determine the power density at the base of a TV broadcast tower. In this case, however, it is necessary to substitute the proposed average DTV effective radiated power (600 kilowatts) for the expression $[0.4ERP_v + ERP_M]$ in this equation to compensate for the fact that DTV power levels are expressed in terms of average power, rather than peak power, as is the case for the visual portion of an analog TV signal. Utilizing the vertical pattern data from Table 1.2 in conjunction with this equation yields a predicted maximum power

density at two meters above ground level of $9.38 \mu\text{W}/\text{cm}^2$ from the proposed STA facilities, which will occur at a depression angle of 56° . Since the maximum permitted power density for uncontrolled exposure on TV Channel 41 is $421.3 \mu\text{W}/\text{cm}^2$, this amounts to only 2.23% of the permitted level for uncontrolled exposure. Since this is less than 5% of the permitted level, these modified STA facilities are excluded from environmental processing and need not be considered in conjunction with other co-located and nearby facilities to establish compliance with this standard for uncontrolled exposure.

These modified STA facilities, in conjunction with other co-located and nearby facilities, will also take appropriate steps to insure that workers who must climb this tower will not be exposed to power densities exceeding the permitted levels for controlled exposure. This will include a reduction in power or the cessation of operation, as appropriate, by these modified STA facilities and/or other co-located or nearby facilities at any time that workers must be on this tower in any area where the total power density exceeds the permitted level for controlled exposure.

These modified DTV STA facilities are predicted to provide interference free noise limited service to a population greater than both the analog replication service population of 1,021,610 and the DTV replication service population of 1,030,661 specified for WGBA in the FCC's Table II (December 21, 2004). Further information documenting the predicted service population for these modified DTV STA facilities will be submitted as a supplement to this engineering statement.

TABLE 1.0

MODIFIED WGBA-DT
STA FACILITIES
Journal Broadcast Corporation
Green Bay, WI

Transmitter Power Output:	28.5 kilowatts (14.55 dBk)
Combiner Insertion Loss:	94.4% (0.25 dB)
Transmission Line Efficiency: (1075 feet (328 meters) RFS 1-416-50 (0.191 dB/100'))	77.9%
Maximum Antenna Power Gain: (Dielectric TUA-C4=8/32R-1-S)	28.6
Maximum Effective Radiated Power:	600 kilowatts (27.8 dBk)

TOWER ALSO SUPPORTS
NUMEROUS MICROWAVE
ANTENNAS

WGBA (TV)
ANTENNA

WACY (TV)
ANTENNA

WGBA-DT
ANTENNA

ANTENNA
STRUCTURE
REGISTRATION
NUMBER:
1034782

301.8 m MSL

566.6 m MSL

623.4 m MSL

321.6 m

264.8 m

NOT TO SCALE

NL - 44° 21' 30"

WL - 87° 58' 48"

CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS., RD. BOX 807
BATH, OHIO 44210-0807
(330) 659-4440

FIG. 1.0

VERTICAL PLAN VIEW

JOURNAL BROADCAST CORPORATION
GREEN BAY, WI



Proposal Number **DCA-10467** Revision: **1**
 Date **18-Feb-04**
 Call Letters **WGBA** Channel **41**
 Location **Green Bay, WI**
 Customer
 Antenna Type **TUA-C4-8/32U-1-S**

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TUA-C4-6350**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.974	45	0.651	90	0.496	135	0.627	180	0.970	225	0.927	270	1.000	315	0.939
1	0.968	46	0.656	91	0.494	136	0.617	181	0.968	226	0.916	271	0.994	316	0.941
2	0.961	47	0.658	92	0.493	137	0.605	182	0.966	227	0.901	272	0.988	317	0.937
3	0.954	48	0.658	93	0.493	138	0.592	183	0.964	228	0.882	273	0.982	318	0.930
4	0.947	49	0.654	94	0.493	139	0.578	184	0.960	229	0.859	274	0.975	319	0.917
5	0.938	50	0.647	95	0.495	140	0.563	185	0.957	230	0.833	275	0.968	320	0.901
6	0.932	51	0.641	96	0.489	141	0.553	186	0.949	231	0.808	276	0.959	321	0.885
7	0.925	52	0.634	97	0.483	142	0.544	187	0.942	232	0.781	277	0.950	322	0.885
8	0.918	53	0.624	98	0.477	143	0.536	188	0.935	233	0.753	278	0.940	323	0.844
9	0.911	54	0.613	99	0.471	144	0.530	189	0.928	234	0.725	279	0.932	324	0.821
10	0.904	55	0.600	100	0.465	145	0.527	190	0.922	235	0.697	280	0.923	325	0.797
11	0.892	56	0.588	101	0.457	146	0.526	191	0.905	236	0.671	281	0.905	326	0.773
12	0.879	57	0.575	102	0.449	147	0.529	192	0.889	237	0.648	282	0.886	327	0.749
13	0.866	58	0.560	103	0.443	148	0.534	193	0.873	238	0.627	283	0.867	328	0.727
14	0.852	59	0.545	104	0.439	149	0.543	194	0.856	239	0.610	284	0.848	329	0.707
15	0.839	60	0.528	105	0.435	150	0.554	195	0.840	240	0.597	285	0.830	330	0.690
16	0.821	61	0.515	106	0.430	151	0.567	196	0.819	241	0.589	286	0.807	331	0.677
17	0.803	62	0.502	107	0.427	152	0.581	197	0.799	242	0.587	287	0.785	332	0.667
18	0.784	63	0.488	108	0.427	153	0.598	198	0.780	243	0.589	288	0.764	333	0.662
19	0.765	64	0.475	109	0.428	154	0.616	199	0.783	244	0.597	289	0.743	334	0.662
20	0.747	65	0.463	110	0.431	155	0.635	200	0.747	245	0.609	290	0.724	335	0.666
21	0.725	66	0.453	111	0.435	156	0.654	201	0.728	246	0.622	291	0.702	336	0.672
22	0.704	67	0.444	112	0.442	157	0.674	202	0.713	247	0.639	292	0.681	337	0.683
23	0.683	68	0.437	113	0.450	158	0.695	203	0.700	248	0.659	293	0.664	338	0.697
24	0.663	69	0.432	114	0.459	159	0.716	204	0.691	249	0.681	294	0.649	339	0.714
25	0.644	70	0.430	115	0.470	160	0.738	205	0.686	250	0.708	295	0.637	340	0.733
26	0.626	71	0.428	116	0.483	161	0.756	206	0.684	251	0.726	296	0.627	341	0.750
27	0.608	72	0.429	117	0.497	162	0.774	207	0.686	252	0.748	297	0.622	342	0.768
28	0.593	73	0.433	118	0.511	163	0.792	208	0.693	253	0.771	298	0.621	343	0.787
29	0.580	74	0.438	119	0.525	164	0.811	209	0.703	254	0.794	299	0.625	344	0.807
30	0.569	75	0.446	120	0.539	165	0.829	210	0.718	255	0.818	300	0.634	345	0.828
31	0.560	76	0.449	121	0.557	166	0.844	211	0.737	256	0.839	301	0.648	346	0.848
32	0.555	77	0.454	122	0.573	167	0.858	212	0.759	257	0.860	302	0.667	347	0.864
33	0.554	78	0.459	123	0.589	168	0.872	213	0.783	258	0.880	303	0.689	348	0.882
34	0.555	79	0.466	124	0.602	169	0.886	214	0.807	259	0.900	304	0.714	349	0.899
35	0.559	80	0.474	125	0.613	170	0.899	215	0.831	260	0.919	305	0.740	350	0.916
36	0.567	81	0.478	126	0.628	171	0.908	216	0.856	261	0.932	306	0.769	351	0.927
37	0.577	82	0.482	127	0.636	172	0.918	217	0.878	262	0.944	307	0.799	352	0.937
38	0.587	83	0.487	128	0.644	173	0.927	218	0.898	263	0.959	308	0.828	353	0.947
39	0.599	84	0.492	129	0.649	174	0.936	219	0.914	264	0.968	309	0.852	354	0.957
40	0.610	85	0.498	130	0.651	175	0.946	220	0.927	265	0.979	310	0.875	355	0.968
41	0.622	86	0.497	131	0.653	176	0.951	221	0.936	266	0.984	311	0.897	356	0.968
42	0.633	87	0.496	132	0.651	177	0.956	222	0.941	267	0.988	312	0.914	357	0.970
43	0.641	88	0.496	133	0.646	178	0.961	223	0.942	268	0.992	313	0.927	358	0.972
44	0.648	89	0.496	134	0.638	179	0.965	224	0.937	269	0.996	314	0.936	359	0.973

TABLE 1.1

WGBA HORIZONTAL RADIATION PATTERN

Journal Broadcast Corporation
 Green Bay, WI

Proposal Number	DCA-10467	Revision:	1
Date	18-Feb-04		
Call Letters	WGBA	Channel	41
Location	Green Bay, WI		
Customer			
Antenna Type	TUA-C4-8/32U-1-S		

AZIMUTH PATTERN

Gain	1.80	(2.55 dB)
Calculated / Measured		Calculated

Frequency	635.00 MHz
Drawing #	TUA-C4-6350

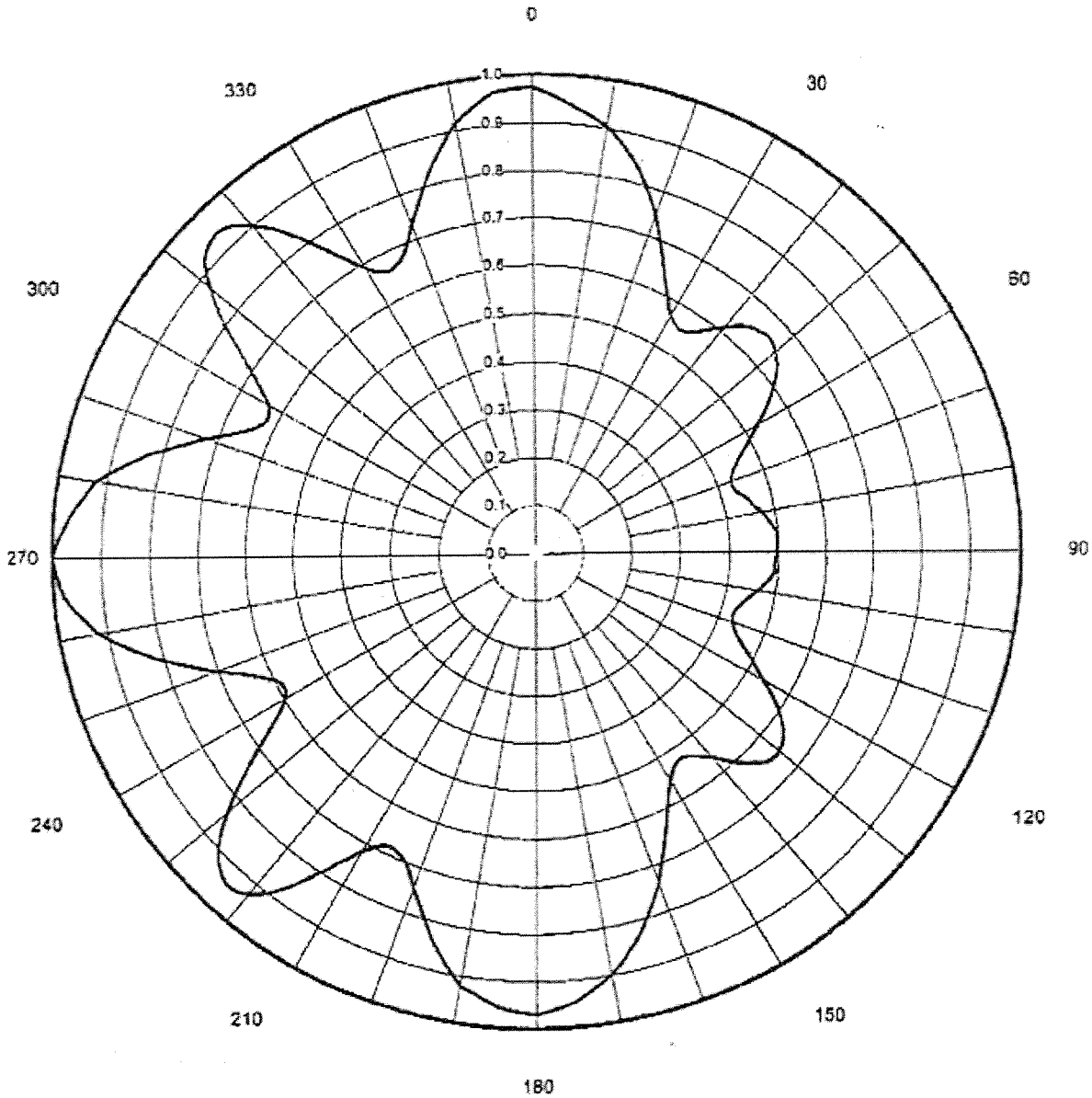


FIG. 1.1

WGBA HORIZONTAL RADIATION PATTERN

Journal Broadcast Corporation
Green Bay, WI



Proposal Number **DCA-10467** Revision: **1**
 Date **18-Feb-04**
 Call Letters **WGBA** Channel **41**
 Location **Green Bay, WI**
 Customer
 Antenna Type **TUA-C4-8/32U-1-S**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **08U159080-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.150	2.4	0.567	10.6	0.109	30.5	0.024	51.0	0.067	71.5	0.020
-9.5	0.160	2.6	0.486	10.8	0.110	31.0	0.021	51.5	0.042	72.0	0.019
-9.0	0.143	2.8	0.410	11.0	0.108	31.5	0.024	52.0	0.045	72.5	0.018
-8.5	0.105	3.0	0.344	11.5	0.089	32.0	0.032	52.5	0.075	73.0	0.017
-8.0	0.067	3.2	0.290	12.0	0.082	32.5	0.039	53.0	0.111	73.5	0.016
-7.5	0.088	3.4	0.255	12.5	0.063	33.0	0.044	53.5	0.145	74.0	0.014
-7.0	0.081	3.6	0.240	13.0	0.092	33.5	0.042	54.0	0.173	74.5	0.013
-6.5	0.074	3.8	0.240	13.5	0.117	34.0	0.036	54.5	0.196	75.0	0.011
-6.0	0.056	4.0	0.249	14.0	0.123	34.5	0.028	55.0	0.211	75.5	0.010
-5.5	0.119	4.2	0.260	14.5	0.109	35.0	0.023	55.5	0.218	76.0	0.009
-5.0	0.236	4.4	0.267	15.0	0.080	35.5	0.027	56.0	0.217	76.5	0.008
-4.5	0.357	4.6	0.269	15.5	0.050	36.0	0.033	56.5	0.210	77.0	0.007
-4.0	0.452	4.8	0.264	16.0	0.037	36.5	0.037	57.0	0.196	77.5	0.006
-3.5	0.489	5.0	0.252	16.5	0.043	37.0	0.036	57.5	0.179	78.0	0.006
-3.0	0.451	5.2	0.234	17.0	0.042	37.5	0.030	58.0	0.158	78.5	0.005
-2.8	0.413	5.4	0.212	17.5	0.029	38.0	0.024	58.5	0.135	79.0	0.005
-2.6	0.363	5.6	0.188	18.0	0.034	38.5	0.024	59.0	0.112	79.5	0.005
-2.4	0.303	5.8	0.166	18.5	0.069	39.0	0.034	59.5	0.090	80.0	0.005
-2.2	0.237	6.0	0.148	19.0	0.108	39.5	0.046	60.0	0.071	80.5	0.005
-2.0	0.177	6.2	0.139	19.5	0.137	40.0	0.055	60.5	0.055	81.0	0.005
-1.8	0.149	6.4	0.139	20.0	0.149	40.5	0.058	61.0	0.045	81.5	0.005
-1.6	0.184	6.6	0.149	20.5	0.142	41.0	0.056	61.5	0.040	82.0	0.005
-1.4	0.263	6.8	0.163	21.0	0.116	41.5	0.048	62.0	0.040	82.5	0.005
-1.2	0.359	7.0	0.178	21.5	0.076	42.0	0.036	62.5	0.041	83.0	0.005
-1.0	0.461	7.2	0.190	22.0	0.037	42.5	0.025	63.0	0.041	83.5	0.005
-0.8	0.561	7.4	0.199	22.5	0.040	43.0	0.021	63.5	0.041	84.0	0.005
-0.6	0.656	7.6	0.202	23.0	0.071	43.5	0.024	64.0	0.040	84.5	0.005
-0.4	0.744	7.8	0.201	23.5	0.095	44.0	0.027	64.5	0.036	85.0	0.005
-0.2	0.822	8.0	0.194	24.0	0.104	44.5	0.026	65.0	0.033	85.5	0.004
0.0	0.887	8.2	0.182	24.5	0.100	45.0	0.020	65.5	0.029	86.0	0.004
0.2	0.939	8.4	0.167	25.0	0.084	45.5	0.019	66.0	0.025	86.5	0.004
0.4	0.975	8.6	0.149	25.5	0.064	46.0	0.033	66.5	0.021	87.0	0.004
0.6	0.996	8.8	0.129	26.0	0.044	46.5	0.055	67.0	0.018	87.5	0.004
0.8	1.000	9.0	0.110	26.5	0.029	47.0	0.080	67.5	0.017	88.0	0.004
1.0	0.989	9.2	0.094	27.0	0.017	47.5	0.104	68.0	0.017	88.5	0.004
1.2	0.961	9.4	0.084	27.5	0.013	48.0	0.123	68.5	0.017	89.0	0.004
1.4	0.919	9.6	0.082	28.0	0.012	48.5	0.135	69.0	0.018	89.5	0.004
1.6	0.865	9.8	0.083	28.5	0.015	49.0	0.139	69.5	0.019	90.0	0.004
1.8	0.800	10.0	0.089	29.0	0.021	49.5	0.133	70.0	0.020		
2.0	0.727	10.2	0.097	29.5	0.026	50.0	0.118	70.5	0.020		
2.2	0.648	10.4	0.104	30.0	0.027	50.5	0.095	71.0	0.020		

TABLE 1.2

WGBA VERTICAL RADIATION PATTERN

Journal Broadcast Corporation
 Green Bay, WI

Proposal Number	DCA-10467	Revision:	1
Date	18-Feb-04		
Call Letters	WGBA	Channel	41
Location	Green Bay, WI		
Customer			
Antenna Type	TUA-C4-8/32U-1-S		

ELEVATION PATTERN

RMS Gain at Main Lobe	15.90 (12.01 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	12.50 (10.97 dB)	Frequency	635.00 MHz
Calculated / Measured	Calculated	Drawing #	08U159080-90

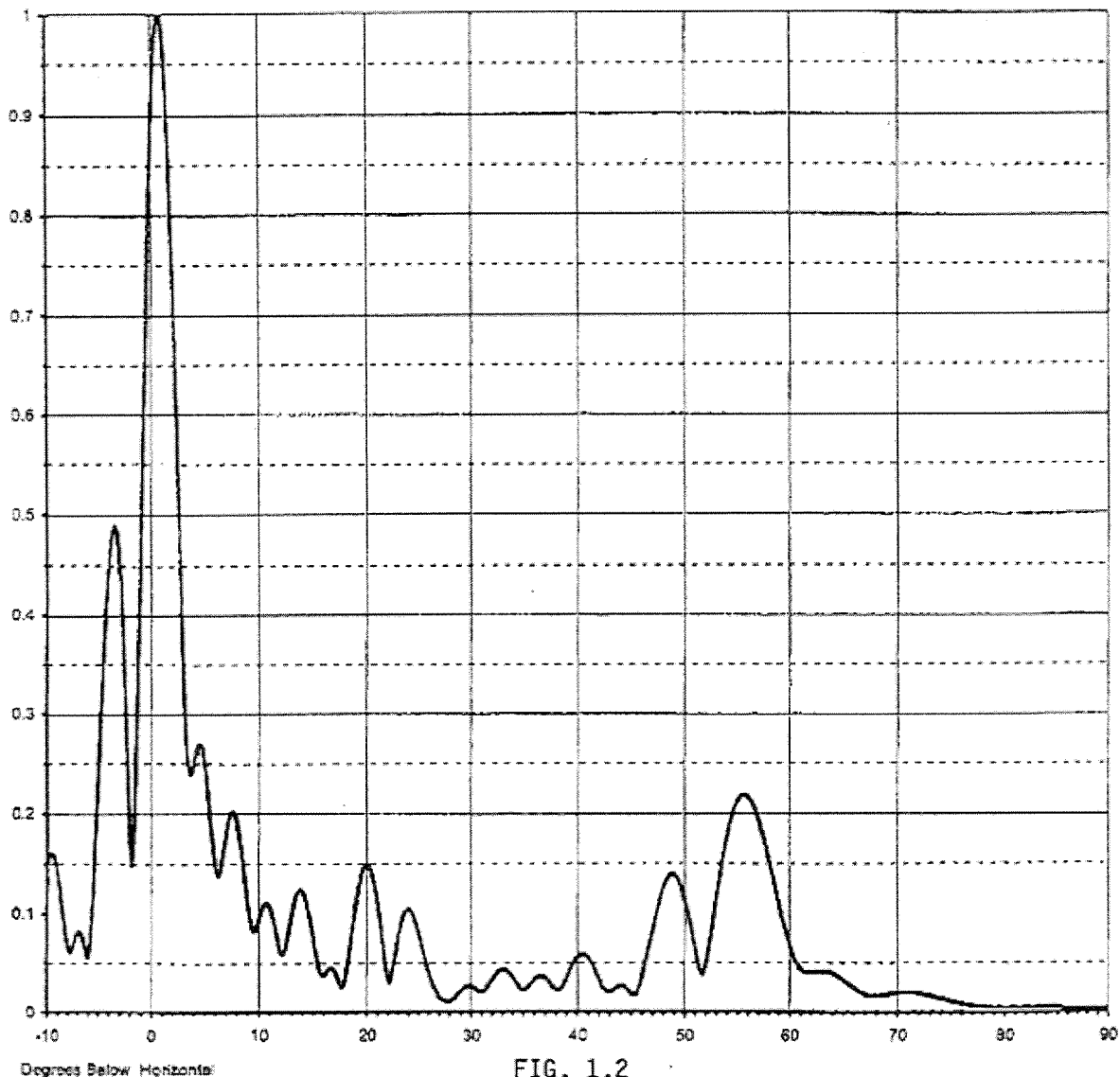


FIG. 1.2

WGBA VERTICAL RADIATION PATTERN

Journal Broadcast Corporation
Green Bay, WI

